Claims

1. An arrangement for producing a sequence of a predetermined length in a spread spectrum communication system, the arrangement comprising:

a plurality of predetermined sequences having lengths less than the predetermined length;

means for selecting at least two of the plurality of predetermined sequences; and

means for concatenating the selected at least two of the plurality of predetermined sequences to produce the predetermined length sequence.

2. The arrangement of claim 1 wherein

the plurality of predetermined sequences are arranged in an indexed list; and

the means for selecting comprises:

means for selecting a first sequence of the at least two of the plurality of predetermined sequences with an index value of *n* from the list; and

means for selecting each successive sequence of the at least two of the plurality of predetermined sequences with an index value incremented from that of the previously selected sequence from the list.

3. The arrangement of claim 2 wherein the increment is a predetermined integer.

4. The arrangement of claim 3 wherein the predetermined integer is one of: 0, 1 and 2 .

5. The arrangement of claim 2 wherein the increment is randomly chosen for each successive sequence.

6. The arrangement of any one of claims 2-5 wherein n is determined from at least one of A-F:

A initial cell parameter assignment,
B system frame number (SFN),
C chip rate of transmission,
D predetermined length of spreading code,
E identifier of intended receiver of data spread with the predetermined length spreading code,
F channelisation code employed.

7. The arrangement of any one of claims 1-6 wherein the plurality of predetermined sequences have a length of 16 chips.

8. The arrangement of any one of claims 1-7 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

9. The arrangement of claim 8 wherein the system comprises a UTRA TDD system.

10. The arrangement of any one of claims 1-8 wherein the sequence is one of:

a spreading sequence,
a scrambling sequence and

a midamble.

11. The arrangement of any one of claims 1-9 further comprising:

means for processing data with the predetermined length sequence.

12. A method of producing a sequence of a predetermined length in a spread spectrum communication system, the method comprising:

providing a plurality of predetermined sequences having lengths less than the predetermined length;

selecting at least two of the plurality of predetermined sequences;

concatenating the selected at least two of the plurality of predetermined sequences to produce the predetermined length sequence.

13. The method of claim 12 wherein

the step of providing comprises providing the plurality of predetermined sequences in an indexed list; and

the step of selecting comprises:

selecting a first sequence of the at least two of the plurality of predetermined sequences with an index value of n from the list; and

selecting each successive sequence of the at least two of the plurality of predetermined sequences with an index value incremented from that of the previously selected sequence from the list.

14. The method of claim 13 wherein the increment is a predetermined integer.

15. The method of claim 14 wherein the increment is one of: 0, 1 and 2.

16. The method of claim 13 wherein the increment is randomly chosen for each successive sequence.

17. The method of any one of claims 12-16 wherein *n* is determined from at least one of A-F:

A initial cell parameter assignment,

B system frame number (SFN),

C chip rate of transmission,

D predetermined length of spreading code,

E identifier of intended receiver of data spread with the predetermined length spreading code,

F channelisation code employed.

18. The method of any one of claims 12-17 wherein the plurality of predetermined sequences have a length of 16 chips.

19. The method of any one of claims 11-17 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

20. The method of claim 19 wherein the UMTS system comprises a UTRA TDD system.

21. The method of any one of claims 12-20 further comprising:

processing data with the predetermined length sequence.

22. A base station for use in a CDMA system, the base station comprising the arrangement of any one of claims 1-11.

23. User equipment for use in a CDMA system, the user equipment comprising the arrangement of any one of claims 1-11.

23. A computer program element comprising computer program means for performing substantially the method of any one of claims 12-21.

24. An integrated circuit comprising substantially the arrangement of any one of claims 1-11.